

Collaboration | **Connectivity** | Cloud & SaaS | IoT Solutions | Marketing Solutions | Security Solutions**Segment** : IT/ ITeS**Solution** : SIP Trunk + ILL**Highlight** : Voice DTMF provider moves services to the Cloud

OVERVIEW

The customer is an on-premises DTMF voice solutions provider to BFSI clients. They build text-to-speech and speech-to-text solutions for their clients.



CHALLENGE

Due to the COVID-19 pandemic, the customer wanted to have their services hosted in a private cloud. The existing setup solution for their end customers was an on-premise solution. Their text-to-speech and speech-to-text conversion solutions were hosted on the AWS public cloud.

The customer required a scalable and secure solution with better uptime and SLA.



SOLUTION

- TTBS delivered SIP trunk over Ethernet with SDH ring architecture.
- SIP trunk terminated over SBC from the last mile.
- Handoff Ethernet RJ-45 was connected to the SIP server (client server) with an inbuilt platform.
- Both incoming and outgoing calls would take place with this hosted platform in a private cloud.
- The path: Customer dials into a Direct Inward Dialling (DID); IVR plays; customer responds through voice instead of dial pad; voice is converted to text and sent to the master server (AWS), from where it receives a response and is sent back to the client server (SIP Server); converted from text to speech; and the voice message response is finally delivered to the customer.
- We provided 100 MB of ILL for seamless communication between the SIP server (client server) and the master server on AWS.
- Bandwidth for both trunks supported collective aggregate for concurrency.
- TTBS SIP Trunk is a P2P circuit with /30 IP address assigned. The same IP address was assigned to the NIC interface of the customer PBX.
- Codec on both trunks was configured along the internationally approved G.711 A law.
- Dual-tone multi-frequency (DTMF) method followed RFC 2833.
- "P-Preferred-Identity" header was included in all SIP INVITEs for correct DID CLIP display on the outgoing calls.
- DID no. sending (DNIS) on SIP INVITE "To" header on the incoming calls.



BUSINESS BENEFITS

- Keep-alive mechanism was made available through SIP OPTIONS. The expected response was SIP 200 OK from the CPE device.
- TTBS provided the following apparatus:
 - Customer IP (configured at SBC's NIC port)
 - Gateway IP
 - SIP Server IP
 - Subnet Mask
 - Username
 - Password
 - DID Range
- **Business growth** due to customer services being hosted on the private cloud, even during the lockdown
- **Easily scalable solution** with up to 1,500 channels
- **Better voice clarity** at 100 Kbps per channel
- **Easily deployable solution** due to IP technology
- **Improvement in customer satisfaction**

SOLUTION ARCHITECTURE

